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EXAMINER

SAUNDERS JR, JOSEPH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/694,439	Applicant(s) ROBERTS ET AL.	
	Examiner Joseph Saunders	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 32-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 32-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial office action based on the application filed October 28, 2003. Claims 1 – 30 and 32 – 43 are currently pending and considered below. Claim 31 is missing.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 20 of Figure 1, 72 of Figure 3, and 88 of Figure 4. It is also noted that reference character "82" has been used to designate both the step for "modify user preference criteria based on identification information" and "analog recognition used" in Figure 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid

abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2 – 14 and 36 – 38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 2, 36, and 38 recites the limitation "the duration". Although there appears to be sufficient antecedent basis for this limitation in the claim since there is a duration mentioned in claim 1, the two durations appear to be different. The "duration" in claim 1 appears to be information determined from the step of identifying the signal, while the "duration" in claim 2 appears to be used to identify the signal. This conclusion is supported by the specification in paragraphs 25 and 26, "audio signals are recognized using multiple techniques, including fingerprint recognition and son duration, or the

period of time between recognized fingerprints” and “audio recognizer 18 extracts 66 fingerprint(s) from the audio signals and sends 68 candidate fingerprint(s) and playing time to at least one server which performs audio recognition”. Therefore for examination purposes the examiner will interpret the “duration” of claim 1 to be different than the “duration” of claim 2. Claims 36 and 38 depend on claim 34 and have the same problem as claim 2 depending on claim 1 discussed above. Claims 3 – 14 depend from claim 2 and 37 depends from claim 36 and are therefore rejected for the same reason. Appropriate clarification and correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 15 – 19, 25 – 30, 32 – 35, and 39 – 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Logan et al. (US 6,931,451 B1), hereinafter Logan.

Claim 1: Logan discloses a method of recording audio (Systems and Methods for Modifying Broadcast Programming), comprising: storing user preference criteria

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(Column 20 Lines 21 – 44); identifying audio signals using a database of previously identified audio signals (Column 15 Lines 8 – 45); determining duration of the audio signals based on said identifying (Column 15 Lines 8 – 45); and saving a recording of the audio signals based on the user preference criteria and the duration (Column 19 Lines 13 – 57).

Claim 15: Logan discloses a method as recited in claim 1, further comprising: receiving the audio signals at a local device from a remote device; and temporarily storing the audio signals as the recording until said identifying is completed (Column 19 Lines 13 – 57).

Claim 16: Logan discloses a method as recited in claim 15, wherein the audio signals are received as analog signals via a first radio broadcast on a first frequency (Column 19 Lines 13 – 57).

Claim 17: Logan discloses a method as recited in claim 15, wherein said method further comprises converting the analog signals to digital signals prior to said identifying (Column 16 Lines 6 – 9).

Claim 18: Logan discloses a method as recited in claim 15, further comprising outputting different audio signals from a different source to a user during said receiving (Column 19 Lines 13 – 57).

Claim 19: Logan discloses a method as recited in claim 18, further comprising receiving the different audio signals via a second radio broadcast on a second frequency during said receiving of the first radio broadcast (Column 19 Lines 13 – 57).

Claim 25: Logan discloses a method as recited in claim 15, further comprising outputting different audio signals from a different source to a user during said receiving (Column 19 Lines 13 – 57).

Claim 26: Logan discloses a method as recited in claim 25, further comprising: identifying the different audio signals; and saving identification information matching the different audio signals as listening habit information (Logan, Column 19 Line 59 – Column 20 Line 51).

Claim 27: Logan discloses a method as recited in claim 26, further comprising modifying the user preference criteria based on the listening habit information (Logan, Column 19 Line 59 – Column 20 Line 51).

Claim 28: Logan discloses a method as recited in claim 26, further comprising notifying a user of currently broadcast audio signals matching at least one of the user preference criteria and the listening habit information (Logan, Column 19 Lines 52 – 58).

Claim 29: Logan discloses a method as recited in claim 25, further comprising scanning a plurality of different sources for currently broadcast audio signals matching the user preference criteria (Logan, Column 19 Lines 13 – 57).

Claim 30: Logan discloses a method as recited in claim 25, wherein said receiving uses at least one computer network for transmission of a digital audio stream (Logan, Column 6 Lines 10– 12).

Claim 32: Logan discloses a method as recited in claim 25, further comprising: identifying the different audio signals; and automatically switching output of the different audio signals to the user from the different source to alternative audio signals from an alternative source if the different audio signals are recognized as undesired by the user (Logan, Column 19 Lines 52 – 58).

Claim 33: Logan discloses a method as recited in claim 32, further comprising: continuing to identify the different audio signals from the different source while outputting the alternative audio signals to the user; and automatically switching output to the user back to the different audio signals from the different source when the different audio signals are identified as desired by the user according to at least one of the user preference criteria and listening habits of the user (Logan, Column 19 Lines 52 – 58).

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Claim 34: Logan discloses an apparatus for identifying and recording audio (Figures 1 – 6), comprising: at least one storage unit to store user preference criteria and recordings with associated identification information (Local Song Storage 107 and Stored Content Guide 115); and at least one processor, coupled to said at least one storage unit, to identify audio signals (Snippet Extractor 109) using at least one database of previously identified audio signals (Signature Database 113), determine duration of the audio signals based on identification thereof, and control saving of a recording of the audio signals in said at least one storage unit based on the user preference criteria and the duration (Column 15 Lines 8 – 45, Column 19 Lines 13 – 57, and Column 20 Lines 21 – 44).

Claim 35: Logan discloses an apparatus as recited in claim 34, wherein at least one audio recognition service (Recognition Engine 111) external to said apparatus maintains the at least one database of previously identified audio signals (Signature Database 113), and wherein said apparatus further comprises at least one interface coupled to said at least one processor and the at least one audio recognition service (“communications systems 22A and 22B are devices that allow for the transmission of computer readable data signals between a local and a remote computer system, Column 7 Lines 61 – 63).

Claim 39: Logan discloses an apparatus as recited in claim 34, further comprising at least one receiver (Receiver 12 or Broadcast Receiver 103), coupled to said at least

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one processor, to receive at least some of the audio signals as broadcast radio (Figures 1 – 6).

Claim 40: Logan discloses an apparatus as recited in claim 39, further comprising at least one interface, coupled to said storage unit, to receive at least some of the audio signals from a local playback device (Column 6 Lines 10 – 12).

Claim 41: Logan discloses an apparatus as recited in claim 39, wherein the at least one receiver includes at least two tuners for receiving the broadcast radio on at least two frequencies (Column 6 Lines 7 – 9), and wherein the at least one processor automatically controls at least one of the tuners according to programmed instructions (Column 19 Lines 13 – 57).

Claim 42: Logan discloses an least one computer readable medium storing instructions executable by at least one processor to perform a method of recording audio (Systems and Methods for Modifying Broadcast Programming), comprising: storing user preference criteria (Column 20 Lines 21 – 44); identifying audio signals using a database of previously identified audio signals (Column 15 Lines 8 – 45); determining duration of the audio signals based on said identifying (Column 15 Lines 8 – 45); and saving a recording of the audio signals based on the user preference criteria and the duration (Column 19 Lines 13 – 57).

Claim 43: Logan discloses an apparatus for identifying and recording audio, comprising: storage means for storing user preference criteria and recordings of audio signals (Column 20 Lines 21 – 44); and identification means for identifying audio signals using a database of previously identified audio signals and for determining duration of the audio signals based on said identifying (Column 15 Lines 8 – 45), said storage means saving a recording of the audio signals based on the user preference criteria and the duration (Column 19 Lines 13 – 57).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 – 4, 6 – 14, 20 – 24, and 36 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 6,931,451 B1) in view of Ellis et al. (US 7,171,174 B2), hereinafter Ellis.

Claim 2 and 3: Logan discloses a method as recited in claim 1, wherein said identifying comprises: extracting from the audio signals at least one candidate fingerprint using at least one technique; and comparing the at least one candidate fingerprint with at least one database of reference fingerprints for identified recordings, and wherein said method further comprises supplying identification data corresponding to at least one

reference fingerprint that said comparing finds matches the at least one candidate fingerprint and the duration (Column 15 Lines 8 – 45). As mentioned in the rejection under 35 U.S.C. 112, second paragraph the duration seems to indicate that the length of the candidate fingerprint signal was used in the comparison with the database of reference fingerprints to determine a match. Logan *does not disclose* using the duration for matching a candidate fingerprint to a reference fingerprint and *does not disclose* wherein said extracting uses a plurality of techniques to extract a plurality of candidate fingerprints, and wherein said comparing uses the plurality of candidate fingerprints. Logan only discloses generally how fingerprints are used to identify recordings, therefore one would be inclined to look elsewhere for the necessary teachings into specifically how to use fingerprints to identify recordings. Ellis discloses a similar device that allows for multiple radio signals to be processed and stored, and also discloses using fingerprints to identify the recordings. Ellis teaches using keywords and other signature words based on run length (duration) and discloses using the appropriate signature offsets and therefore a plurality of candidate fingerprints to aid in the determining of a match along with other analysis techniques shown in Figures 17A, 17B, and 17C (Column 20 Lines 18 – 48 and Column 23 Line 46 – Column 24 Line 8). Since Logan does not go into the details necessary to implement such a system and since Ellis's device is very similar to Logan's, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the techniques disclosed by Ellis since Ellis offers multiple options with a detailed teachings used to differentiate and identify different types of broadcast signals so that identification data can be received.

Claim 4: Logan and Ellis disclose a method as recited in claim 3, wherein said determining the duration comprises: detecting a candidate length of at least part of the recording; and comparing the candidate length with reference lengths of the identified recordings (Ellis, Column 20 Lines 18 – 48).

Claim 6: Logan and Ellis disclose a method as recited in claim 4, further comprising sending at least the plurality of candidate fingerprints and playing time information from a client device performing said saving to at least one server device storing the at least one database, wherein said comparing is performed by the at least one server device, and wherein said supplying is performed via a network transmitting the identification data from the at least one server device to the client device (Logan, Column 15 Lines 8 – 45 and Ellis, Column 20 Lines 18 – 48 and Column 23 Line 46 – Column 24 Line 8).

Claim 7: Logan and Ellis disclose a method as recited in claim 4, wherein the identification information includes at least one of artist, genre and rating (Logan, Column 15 Lines 8 – 45 and Ellis, Figure 16).

Claim 8: Logan and Ellis disclose a method as recited in claim 7, wherein said saving includes comparing the at least one of artist, genre and rating in the identification data with the user preference criteria to determine whether to save the recording of the audio signals (Logan, Column 19 Lines 13 – 57).

Claim 9: Logan and Ellis disclose a method as recited in claim 3, wherein the plurality of techniques include both digital fingerprints (represented by Figures 17A, 17B, 17C) and analog fingerprints (represented by the run length and offsets) (Ellis, Column 20 Lines 18 – 48 and Column 23 Line 46 – Column 24 Line 8).

Claim 10: Logan and Ellis disclose a method as recited in claim 2, wherein said saving further includes saving the identification data with the recording (Logan states “information describing the content of the matching programs is returned to the client location for use as a program guide, facilitating the selection, permanent storage, or playback of desired program records and/or the erasure of undesired programming,” Abstract and Ellis, Column 23 Lines 10 – 22 and Figure 16).

Claim 11: Logan and Ellis disclose a method as recited in claim 10, wherein said saving is performed for a plurality of recordings (plurality of “segments”, Logan, Column 9 Lines 17 – 25), and wherein the identification information includes at least one of artist, genre and rating (Logan, Column 15 Lines 8 – 45).

Claim 12: Logan and Ellis disclose a method as recited in claim 11, further comprising modifying the user preference criteria based on at least part of the identification information saved with the recordings (Logan, Column 19 Line 59 – Column 20 Lines 51).

Claim 13: Logan and Ellis disclose a method as recited in claim 11, further comprising notifying a user of currently broadcast audio signals matching the user preference criteria (Logan, Column 19 Lines 52 – 58).

Claim 14: Logan and Ellis disclose a method as recited in claim 11, further comprising: receiving at least one parameter from a user; and automatically generating a playlist of at least one of the recordings based on the at least one parameter (Logan, Column 20 Lines 34 – 42 and Column 21 Lines 13 – 32).

Claim 20: Logan and Ellis disclose a method as recited in claim 19, Logan does not disclose the method further comprising providing a user interface for determining the audio signals received via the first radio broadcast regardless of whether the different audio signals are being output, however Ellis disclose the method further comprising providing a user interface for determining the audio signals received via the first radio broadcast regardless of whether the different audio signals are being output. It would have been obvious to one of ordinary skill in the art at the time of the invention to include a the ability to “notify the user when it recognizes an item that is a member of a group liked by the user when it recognizes an item that is a member of a group liked by the user when it occurs on a station not being listened by the user when it occurs on a station not being listened to by the user but that is monitored by the system,” Column 24 Lines 36 – 43, using a display, Column 24 Lines 55 – 67, since incorporating this

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feature into would allow for the user to decide if he or she should change to the other station.

Claim 21: Logan and Ellis disclose a method as recited in claim 20, wherein said providing includes a manual interface on the local device (buttons and display on front panel local to device, Ellis, Column 24 Lines 55 – 67).

Claim 22: Logan and Ellis disclose a method as recited in claim 20, wherein said providing is performed on a programming device separate from the local device (keyboard, mouse, and monitor external from local device, Ellis, Column 24 Lines 55 – 67).

Claim 23: Logan and Ellis disclose a method as recited in claim 22, wherein the local device and the programming device are connected via a network, and wherein said providing includes accepting input from the user regarding at least one of broadcast time, a radio station broadcasting the audio signals, radio station format, genre of broadcast audio, popularity of broadcast audio, location of broadcaster, year of broadcast, language of broadcast and minimum quality of the audio signals (Ellis, Column 24 Lines 55 – 67 and Column 25 Lines 1 – 10).

Claim 24: Logan and Ellis disclose a method as recited in claim 20, wherein said providing includes displaying program information about audio signals broadcast on the second frequency (Ellis, Column 24 Lines 36 – 43 and Column 24 Lines 55 – 67).

Claim 36 and 37: Logan discloses an apparatus as recited in claim 35, wherein said at least one processor extracts from the audio signals at least one candidate fingerprint using at least one technique, and wherein the at least one audio recognition service compares the at least one candidate fingerprint with the at least one database of reference fingerprints for identified recordings, and sends to said at least one interface identification data corresponding to at least one reference fingerprint that matches the at least one candidate fingerprint and the duration (Column 15 Lines 8 – 45). As mentioned in the rejection under 35 U.S.C. 112, second paragraph the duration seems to indicate that the length of the candidate fingerprint signal was used in the comparison with the database of reference fingerprints to determine a match. Logan *does not disclose* using the duration for matching a candidate fingerprint to a reference fingerprint and *does not disclose* wherein said extracting uses a plurality of techniques to extract a plurality of candidate fingerprints, and wherein said comparing uses the plurality of candidate fingerprints. Logan only discloses generally how fingerprints are used to identify recordings, therefore one would be inclined to look elsewhere for the necessary teachings into specifically how to use fingerprints to identify recordings. Ellis discloses a similar device that allows for multiple radio signals to be processed and stored, and also discloses using fingerprints to identify the recordings. Ellis teaches using keywords and

other signature words based on run length (duration) and discloses using the appropriate signature offsets and therefore a plurality of candidate fingerprints to aid in the determining of a match along with other analysis techniques shown in Figures 17A, 17B, and 17C (Column 20 Lines 18 – 48 and Column 23 Line 46 – Column 24 Line 8). Since Logan does not go into the details necessary to implement such a system and since Ellis's device is very similar to Logan's, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the techniques disclosed by Ellis since Ellis offers multiple options with a detailed teachings used to differentiate and identify different types of broadcast signals.

Claim 38: Logan discloses an apparatus as recited in claim 35, wherein the at least one audio recognition service extracts from the audio signals at least one candidate fingerprint using at least one technique, compares the at least one candidate fingerprint with the at least one database of reference fingerprints for identified recordings, and sends to said at least one interface identification data corresponding to at least one reference fingerprint that matches the at least one candidate fingerprint and the duration (Logan, Column 13 Lines 37 – 59). Logan does not disclose using the duration for matching a candidate fingerprint to a reference fingerprint. Logan only discloses generally how fingerprints are used to identify recordings, therefore one would be inclined to look elsewhere for the necessary teachings into specifically how to use fingerprints to identify recordings. Ellis discloses a similar device that allows for multiple radio signals to be processed and stored, and also discloses using fingerprints to

identify the recordings. Ellis teaches using keywords and other signature words based on run length (duration) and discloses using the appropriate signature offsets and therefore a plurality of candidate fingerprints to aid in the determining of a match along with other analysis techniques shown in Figures 17A, 17B, and 17C (Column 20 Lines 18 – 48 and Column 23 Line 46 – Column 24 Line 8). Since Logan does not go into the details necessary to implement such a system and since Ellis's device is very similar to Logan's, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the techniques disclosed by Ellis since Ellis offers multiple options with a detailed teachings used to differentiate and identify different types of broadcast signals.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan et al. (US 6,931,451 B1) and Ellis et al. (US 7,171,174 B2) in view of Wijnands et al. (US 2006/0146787 A1), hereinafter Wijnands.

Claim 5: Logan and Ellis disclose a method as recited in claim 4, but *do not disclose* wherein said saving replaces a previous recording if said identifying matches the audio signals with one of the identified recordings which also matches the previous recording and the audio signals are perceivable as having better quality than the previous recording. Wijnands discloses a personal recorder/playback system similar to Logan and Ellis that receives multiple audio streams from analog and digital sources, temporarily stores the streams in a queue, and after analysis either discards,

permanently stores, or is used to improve the quality of a previously stored stream (Abstract and Figure 5). It would have been obvious to one of ordinary skill in the art to add the step of comparing the quality of the identified signal as disclosed by Wijnands in the system of Logan and Ellis since doing so allows for the quality of stored broadcast recordings to be improved in the case that voice over was present in the previous recording (Wijnands, Paragraph 47) (It is noted that the priority document does not have support for the limitation of claim 5 and therefore Wijnands constitutes prior art).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Saunders whose telephone number is (571) 270-1063. The examiner can normally be reached on Monday - Thursday, 9:00 a.m. - 4:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JS
April 9, 2007



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